ABSTRACT

A flash driver tracks data stored in a flash memory device through the use of logical-to-physical sector mapping. The mapping is stored in a data structure and allows data to be written into the next free physical sector in the flash memory medium. Write operations complete quickly, because there is no need to perform an erase operation in order to write new data on to the flash memory medium. Data loss due to power interruption during a write operation is also minimized by the described implementations. The logical-to-physical sector mapping stored in data structure is backed-up on the flash memory medium. In the event there is a catastrophic power interruption, logical-to-physical sector mapping can easily be reestablished by scanning the backed-up mapping in the flash memory medium. The backed-up information can be stored in a spare portion of a NAND or NOR flash memory medium.